No. XXXIV.—AN UNDESCRIBED NATURAL ENEMY OF THE CASTOR SEMILOOPER (*ACHŒA* (*OPHIUSA*) *MELICERTE*, HMP.)

(*With a plate.*)

The semilooper caterpillar of the noctuid moth *Achœa* (*ophiusa*) *melicerte* Hmp. is a common and well known pest of the castor oil plant (*Ricinus comunis*) all over India. In many parts of the country, especially in S. India, this caterpillar is kept in check by an important natural enemy—a hymenopterous parasite. In certain seasons this parasitic wasp has been found to exercise a very effective natural control over this pest, as many as seventy or eighty per cent. of the caterpillars being found dead in the castor plots. The presence of this parasite is easily detected in the fields by the characteristic appearance of its cocoon found attached as a sort of cushion underneath the tail end of each victimised caterpillar (see fig. 3).

Though this parasitic wasp has been known to entomologists in India for some years past, it is curious that it has not been identified or described anywhere till now. This is, of course, due to the fact that very little systematic work has been done by any one on the parasitic hymenoptera, a group of insects of first rate importance as natural enemies of various crop pests, and especially of the forms belonging to the family ' Braconidœ '. For some time past I have been paying some attention to these insects and trying to do some systematic work and as far as I can make out from available literature, this insect does not appear to have been named or described anywhere. There are references to it in recent works on Indian Entomology, but everywhere without a name of its own. I have therefore attempted to publish the following description of the insect in this short paper. Though I have been able to classify the insect down to its sub-family and genus with the aid of the valuable synoptical tables of authors like Ashmead, Marshall and Szepligeti, I was in some doubt as to whether it really belonged to the genus ' Microplitis ' or to one of the very closely allied genera ' Diolocogaster ', ' Microgaster ', or ' Hygroplitis ', and wanted to get my determination confirmed. Mr. H. L. Viereck of the U. S. A. Department of Agriculture, to whom I submitted specimens very kindly examined them and confirmed my identification that it belonged to the genus ' Microplitis '. I take this opportunity of expressing my thanks to this Entomologist who is a well known authority on the family :

Family—Braconidœ.

Sub-family—Microgasterinæ.

Genus—Microplitis, Förster.

Microplitis ophiusæ—nov. sp.

Colour.—General colour shining black clothed with thin silvery pubescence which is more pronounced at the sides of the thorax. Head : black ; palpi fulvous ; face covered with very scanty silvery pubescence ; ocelli brownish; antennæ : scape brown, flagellum dark rufescent. Thorax black ; with shining silvery hairs at the sides ; front legs ferruginous excepting the coxa and trochanter which are dark ; the tibiæ and tarsi of the second pair of legs ferruginous, the other joints dark to fuscoferruginous ; the hind legs uniformly fuscoferruginous, the tibial-spurs fulvous. Fore wings : smoky hyaline and irridescent, stigma dark brown, a fuscous cloud below the stigma and a very light infumation on the discoidals ; hind wings hyaline, very lightly infumated along marginal region. Abdomen : for a third of its length at the proximal portion both above and below, of a light yellowish white colour, excepting a narrow middorsal longitudinal patch which is shining black ; the rest of the abdomen black.

General Structural Features.—Head : from above quadrate, almost as broad as thorax ; face and occiput closely and coarsely punctured ; antennæ slightly longer

Fig. 1.

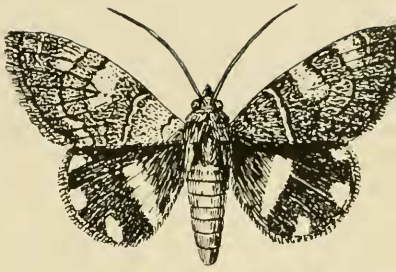

Fig. 2.

Fig. 3.

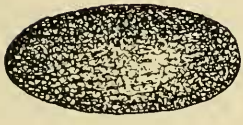

Fig. 4.

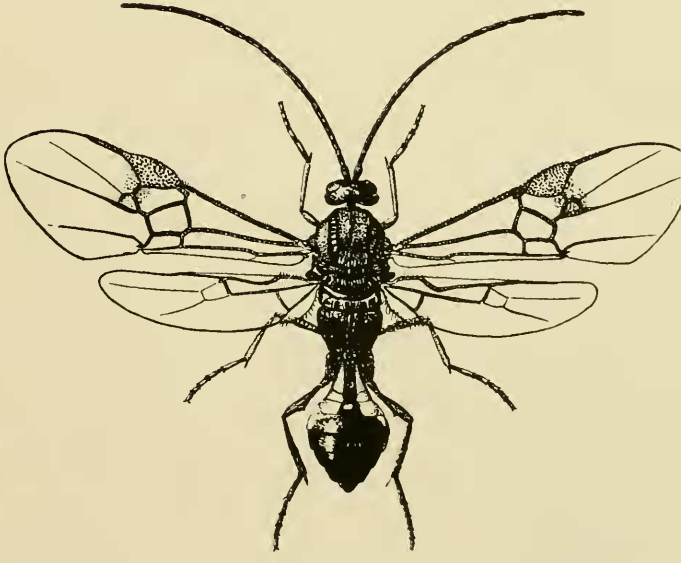

Fig. 5.

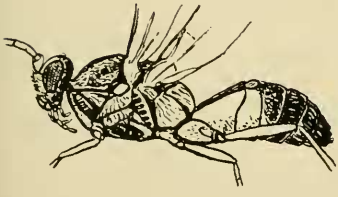

Fig. 6.

An undescribed natural enemy of the Castor Semilooper.
Achoea Ophiusa) melicerte, Hmp.